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Applicants: Jennifer L. West and Brenda K. Mann

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Serial No.: 09/935,168

Art Unit: 1645

Filed: August 21, 2001

Examiner: Not Yet Assigned

For: TISSUE ENGINEERING SCAFFOLDS PROMOTING MATRIX PROTEIN
PRODUCTION

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicants submit an Information Disclosure Statement, including three (3) pages of Form PTO-1449 and copies of the documents cited therein.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 50-1868.

U.S. Patents

<u>Number</u>	<u>Issue Date</u>	<u>Patentee</u>	<u>Class/Subclass</u>
6,013,853	01/11/2000	Athanasίου, et al.	623/11

Foreign Documents

<u>Number</u>	<u>Publication Date</u>	<u>Patentee</u>	<u>Country</u>
WO 96/27657	09/12/1996	Massachusetts Institute of Technology	PCT
0616814 A1	09/28/1994	Bristol-Myers Squibb Company	EP
00428541 B1	05/29/1991	Collagen Corporation	EP

Publications

AMENTO, et al., "Cytokines and growth factors positively and negatively regulate interstitial collagen gene expression in human vascular smooth muscle cells" *Arterioscler. Thromb.* 11(5):1223-1230 (1991).

CLARK, et al., "Collagen matrices attenuate the collagen-synthetic response of cultured fibroblasts to TGF-beta" *J. Cell Sci.* 108(PT3):1251-1261 (1995).

DEE, et al., "Design and function of novel osteoblast-adhesive peptides for chemical modification of biomaterials" *J. Biomed. Mater. Res.* 40(3):371-377 (1998).

EICKELBERG, et al., "Extracellular matrix deposition by primary human lung fibroblasts in response to TGF-beta1 and TGF-beta3" *Am. J. Physiol.* 276(5 Pt 1):L814-L824 (1999).

HEIMER, et al., "TGF-beta modulates the synthesis of proteoglycans by myocardial fibroblasts in culture" *J. Mol. Cell Cardiol.* 27(10):2191-2198 (1995).

HERN et al., "Incorporation of adhesion peptides into nonadhesive hydrogels useful for tissue resurfacing" *J. Biomed. Mater. Res.* 39(2):266-276 (1998).

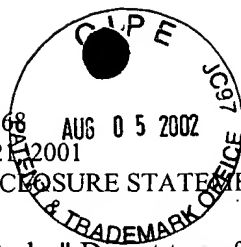
JONES, et al., "Glycoprotein, elastin, and collagen secretion by rat smooth muscle cells" *Proc. natl. Acad. Sci. USA* 76(1):353-357 (1979).

LAWRENCE, et al., "Transforming growth factor beta 1 stimulates type V collagen expression in bovine vascular smooth muscle cells" *J. Biol. Chem.* 269:9603-9609 (1994).

MAJESKY, et al., "Production of transforming growth factor beta 1 during repair of arterial injury" *J. Clin. Invest.* 88(3):904-910 (1991).

MANN, et al., "Modification of surfaces with cell adhesion peptides alters extracellular matrix deposition" *Biomaterials* 20(23-24):2281-2286 (1999).

MASSIA et al., "Covalent surface immobilization of Arg-Gly-Asp- and Tyr-Ile-Gly-Ser-Arg-containing peptides to obtain well-defined cell-adhesive substrates" *Anal. Biochem.* 187(2):292-301 (1990).



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NABEL, et al., "Direct transfer of transforming growth factor beta 1 gene into arteries stimulates fibrocellular hyperplasia" *Proc. Natl. Acad. Sci. USA* 90(22):10759-10763 (1993).

NICOLL, et al., "In vitro characterization of transforming growth factor-beta-1-loaded composites of biodegradable polymer and mesenchymal cells" *Cells and Materials* 5(3): 231-244 (1995).

PANDIT, et al., "The effect of TGF-beta delivered through a collagen scaffold on wound healing" *J. Invest. Surg.* 12(2):89-100 (1999).

PLENZ, et al., "Colony stimulating factors modulate the transcription of type VIII collagen in vascular smooth muscle cells" *Atherosclerosis* 144(1):25-32 (1999).

PUOLAKKAINEN, et al., "The enhancement in wound healing by transforming growth factor-beta 1 (TGF-beta 1) depends on the topical delivery system" *J. Surg. Res.* 58(3):321-329 (1995).

SCHROEDER-TEFFT, et al., "Collagen and heparin matrices for growth factor delivery" *Journal of Controlled Release* 49(2-3): 291-298 (1997).

SCOTT-BURDEN, et al., "Epidermal growth factor responsiveness in smooth muscle cells from hypertensive and normotensive rats" *Hypertension* 13(4):295-305 (1989).

TONG et al., "Peptide surface modification of poly(tetrafluoroethylene-co-hexafluoropropylene) enhances its interaction with central nervous system neurons" *J. Biomed. Mater. Res.* 42(1):85-95 (1998)

WOESSNER, et al., "The determination of hydroxyproline in tissue and protein samples containing small proportions of this imino acid" *Arch. Biochem. Biophys.* 93:440-447 (1961).

ZHANG, et al., "Biological surface engineering: a simple system for cell pattern formation" *Biomaterials* 20(13):1213-1220 (1999).

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Remarks



This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicants invite the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicants are of the opinion that their claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,

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Dated: July 30, 2002

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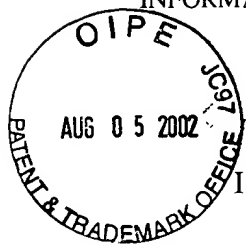
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I hereby certify that this Information Disclosure Statement, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: July 30, 2002

Brent A. Winit

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